

In the Claims

Claims 1-3 (cancelled)

Claim 4 (currently amended): A method of forming semiconductor circuitry, comprising:

providing a monocrystalline silicon substrate;

forming a mask which covers a first portion of the substrate and leaves a second portion uncovered;

forming a recess in the uncovered portion;

at least partially filling the recess with a semiconductive material that comprises at least 1 atomic percent of an element other than silicon;

removing the mask;

forming a first semiconductor circuit component over the first portion of the substrate;

forming a second semiconductor circuit component over the semiconductive material that at least partially fills the recess;

wherein the substrate comprises a bulk monocrystalline silicon structure, an insulative material over the bulk monocrystalline silicon structure, and a monocrystalline silicon mass over the insulative material, and

wherein the recess is formed through the monocrystalline silicon mass and to the insulative material, but does extend entirely through the insulative material.

Claim 5 (cancelled).

Claim 6 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess comprises a III/V compound semiconductive material.

Claim 7 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess comprises silicon and at least 1% carbon.

Claim 8 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists essentially of silicon and at least 1% carbon.

Claim 9 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists of silicon and at least 1% carbon.

Claim 10 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists essentially of a III/V compound semiconductive material.

Claim 11 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess comprises Si and Ge, with the Ge being present to an atomic concentration of from about 1% to about 20%.

Claim 12 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists essentially of Si and Ge, with the Ge being present to an atomic concentration of from about 1% to about 20%.

Claim 13 (previously presented): The method of claim 4 further comprising, before at least partially filling the recess with the semiconductive material, providing an insulative material spacer along a sidewall of the recess; and wherein the at least partially filling the recess with the semiconductive material comprises providing the semiconductive material along the insulative material spacer.

Claim 14 (original): The method of claim 13 wherein the insulative material comprises silicon nitride.

Claim 15 (original): The method of claim 13 wherein the insulative material comprises silicon dioxide.

Claims 16-56 (cancelled).